

Rebalancing to the Pacific: Re-Examining Army Transportation Expeditionary Capability

by

Lieutenant Colonel Robert M. Villalobos
United States Army



United States Army War College
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**Rebalancing to the Pacific:
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Lieutenant Colonel Robert M. Villalobos
United States Army

Colonel Karl D. Bopp
Center for Strategic Leadership
Project Adviser

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U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

Abstract

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As the priority of U.S. interests shifts to the Pacific, many anticipate China will attempt to employ an anti-access/area denial (A2/AD) strategy to limit the influence of U.S. military power in the region. To mitigate this A2/AD strategy, the Air Force and Navy are developing the doctrine of Air-Sea Battle and the Navy and Marine Corps are developing Sea Basing doctrine and capabilities. For the Army, the anticipated strategic environment mandates a more expeditionary force manned, equipped, and trained to meet emerging A2/AD challenges in the Pacific. The shift in priority to the Asia-Pacific region directed by the 2012 National Security Strategy creates an Army transportation force structure capability gap including Doctrine, Organization, Training, Material, Leadership, Personnel and Facilities (DOTMLPF) as it relates to a more expeditionary force. Given the imminent fiscal constraints, the Army must mitigate risk across all DOTMLPF.

Rebalancing to the Pacific: Re-Examining Army Transportation Expeditionary Capability

U.S. economic and security interests are inextricably linked to developments in the arc extending from the Western Pacific and East Asia into the Indian Ocean region and South Asia, creating a mix of evolving challenges and opportunities. Accordingly, while the U.S. Military will continue to contribute to security globally, we will of necessity rebalance toward the Asia-Pacific region.¹

—President Barack Obama,
Sustaining U.S. Global Leadership: Priorities for 21st Century Defense, Jan 2012

The Iraq war is over and major NATO involvement in Afghanistan will conclude in 2014. President Obama seized the opportunity created by these changes to direct the U.S. to “rebalance” efforts towards the rapidly developing and critically important Asia Pacific region. An emerging China has a long history of taking actions to limit foreign influence in their country. Given China’s ongoing development of anti-access and area denial (A2/AD) capabilities, military strategy to maintain a presence and project power in the region is evolving. The development of the Air Sea Battle (ASB) concept by the Navy and Air Force and the Sea Basing (SB) concept by the Navy and Marines are fostering capabilities to counter an A2/AD strategy and project military power in the Pacific. While operations in the Asia-Pacific region are currently focused on the maritime and air domains, the ability to project the Army to the point and place of The Department of Defense’s (DoD) choosing enhances U.S. ability to rebalance to the Asia-Pacific region or any theater where A2/AD threats emerge.

The Army will continue to rely on forward stationed and expeditionary forces to project power to the Asia-Pacific region; however transportation force structure, a critical enabler of expeditionary operations, has declined significantly over the last 15 years.² Since 1996, the Army’s “over the shore force projection” capability has lost over 43% of

its operational force and 53% of its watercraft.³ The remaining fleet of watercraft and terminal support assets are aging with a small portion in the reserves and over 50% prepositioned in Yokahama North Dock (YND), Japan and Kuwait Naval Base (KNB), Kuwait.⁴

The density and readiness of U.S. Army force projection capabilities creates risk in challenging A2/AD threats. On a no notice deployment to an A2/AD scenario in the Pacific, only six of eight of the Army's largest vessels, the Logistics Support Vessel (LSV), could strategically self-deploy from ports in Hawaii and the continental United States. The remaining two LSVs are reserve assets which require considerable time to mobilize. These steps require months rather than days to execute, demanding that the Army must take deliberate measures at the joint and functional level to improve the readiness, capacity and capability of assets in its force projection arsenal.

These challenges, coupled with 10 years of war in permissive environments enabled by a first class intermediate staging base in Kuwait, a luxury in which future adversaries may try to prevent, raises significant questions: Does the Army have the required transportation force structure to support increased expeditionary missions? Is Army transportation force structure sufficiently inter-operable with emerging joint concepts designed to defeat A2/AD? If Army transportation force structure is insufficient for the emerging missions, what are the functional gaps and what can be done to mitigate these gaps in an environment of diminishing resources? These questions must be evaluated and resolved in efforts to address the impending threat.

The shift in priority to the Asia-Pacific region directed by the 2010 National Security Strategy creates an Army transportation force structure capability gap including

Doctrine, Organization, Training, Material, Leadership, Personnel and Facilities (DOTMLPF) as it relates to a more expeditionary force. Given the looming fiscal constraints, the Army must mitigate risk across all DOTMLPF. The Army can rapidly regain its lost transportation capability through reorganization, equipping and training, and create improved capability in the long term through innovation and practical application of current joint efforts associated with A2/AD defeat concepts.

The Strategic Environment

US Fiscal Constraints

In a period of worsening fiscal constraints, US policy may tend to shift to a retrenchment approach to our National Security Strategy. As Joseph Parent, a prominent political science professor states, “Scaling back our global commitments would reduce U.S. forward deployments, could mollify U.S. adversaries, eliminate potential flashpoints, and encourage U.S. allies to contribute more to collective defense—all while easing the burden on the United States of maintaining geopolitical dominance.”⁵ As the U.S looks to adopt policies that will enhance security in a time of limited means, diminishing resources will require a more expeditionary force.⁶ Reducing forward presence will, however, increase reliance on the ability of forces to surge quickly to global trouble spots.

The DoD budget environment is uncertain and, therefore exploiting cost savings is a key consideration in the development of DOTMLPF solutions. The 2011 Budget Control Act requires the DoD to reduce future expenditures by approximately \$487 billion over the next decade, to include \$259 billion over the next five years.⁷ As a means to control deficit spending, sequestration requires spending cuts across the entire budget and could cause \$500 billion in cuts to the DOD budget through 2022, if

the debt limit is exceeded.⁸ Collectively, these programmed and potential budget reductions create uncertainty as DOD considers force structure to support an increased reliance on force projection and expeditionary operations.

The Challenge from China

China takes note of the U.S. rebalancing to the Pacific. Last year at a conference in Australia, Lieutenant General Ren Haiquan, Deputy President of the People's Liberation Army's Academy of Military Science stated, "Some countries pursue strategies such as 'rebalance to the Asia-Pacific' and 'looking East' and are increasing their strategic investment. Several countries do not let go the Cold War mentality. They are consolidating military alliance systems in Asia-Pacific and strengthening their military presence and military deterrence capability."⁹ LTG Ren's comments highlight Chinese concern that rebalancing is actually a containment strategy directed against China. China emerged from isolation in 1978 with Deng Xiaoping's rise to power and subsequent reforms. These reforms opened the Chinese economy to world trade and resulted in unprecedented growth over the last 30 years. China now recognizes that their economy is dependent on the foreign trade, but after years of isolation under Mao Zedong, China is struggling to develop its own grand strategy. Many expect Chinese foreign policy will consider the history of western intervention and conclude the U.S is determined to suppress the Chinese growing influence in the Pacific.¹⁰

Anti-Access / Area Denial Strategy

To counter the perceived threat, many anticipate China will employ an A2/AD strategy to restrict the US's ability to project power in the Asia-Pacific region. Evidence of the emerging A2/AD strategy is demonstrated by the capabilities China is building as it modernizes its' military. China now invests almost 2% of its Gross National Product

(GNP) in "asymmetric capabilities" which are designed to blunt America's overwhelming capacity to project power in the region.¹¹ Anti-access capabilities slow deployment of forces into a theater, prevent forces from operating from certain locations within that theater or cause them to operate over longer distances than desired. Area-denial actions reduce an opponent's freedom of action in the more narrow confines of the area under the enemy's direct control.¹²

The People's Republic of China (PRC) is building specific capabilities to support A2/AD strategies to include thousands of accurate land-based ballistic and cruise missiles, modern jets with anti-ship missiles, a fleet of submarines (both conventionally and nuclear-powered), long-range radars and surveillance satellites, and cyber and space weapons intended to "blind" American forces.¹³ An American Enterprise Institute report states, "If China's military modernization continues at its' present pace, it may be capable of breaking U.S.-Asian alliances by intimidating friendly nations, and threatening U.S. power projection forces."¹⁴

U.S. Response to the Chinese Challenge

A2/AD strategy is not a new concept and has met limited success where nations take proactive steps to counter it. The 2010 National Security Strategy (NSS) recognizes the anticipated A2/AD strategy in the Pacific by tasking DOD to be prepared to deter and defeat aggression in anti-access environments.¹⁵ The Obama administration reinforced the strategic importance of free access to the Asia-Pacific Rim in the January 2010 publication of the updated defense strategic guidance. The document is a blueprint for the force of 2020 and identifies the need to develop A2/AD defeat capabilities.¹⁶ The new strategic defense guidance makes note of China's rising economic and military power, and articulates a possible desire to control access to the

commons of the Pacific to protect their economic interest.¹⁷ The preservation and future enhancement of expeditionary capabilities demonstrates to Asian-Pacific nations the U.S. commitment to active military engagement in the region.

Evolving Joint Strategy

A fiscally responsible A2/AD defeat strategy must be joint, interoperable, leverage existing technologies, and eliminate redundancy. U.S. Forces must be able to react promptly to theater needs from a posture that minimizes footprint.¹⁸ To support these requirements, DOD is changing U.S. global basing policy by placing more emphasis on the ability to surge quickly to trouble spots across the globe as well as making forces more agile and expeditionary.¹⁹ As Secretary Rumsfeld stated in 2005, “The new challenge is to project joint power more rapidly to confront unexpected threats.”²⁰ To specifically address an A2/AD strategy, two major efforts are underway. The Air Force and Navy are developing the Air Sea Battle (ASB) concept with supporting capabilities and the Navy and Marine Corps are developing operational and materiel solutions for Sea Basing (SB) concepts and capabilities. These strategies are not completely joint as the Army is not well integrated into their development.²¹

Air Sea Battle

Air-Sea Battle (ASB) is a joint capabilities concept designed to defeat A2/AD threats in order to create maneuver space to project forces in opposed entry operations.²² CAPTs Dupree and Thomas from the DOD Air-Sea Battle Office describe ASB as, “A pre-integrated, joint force that possesses habitual relationships, interoperable and complementary cross-domain capabilities, and realistic, shared training, while retaining the flexibility to develop new techniques, tactics and procedures (TTPs) on the fly. Such forces will provide the strategic deterrence, assurance and

stabilizing effects of a “force in being” and will also be operationally useful at the outset of hostilities, without requiring delays for buildups and extensive mission rehearsal. Moreover, they will ensure that a joint force commander has a full range of options when facing an adversary with an A2/AD capability.”²³

Upon initial consideration, it appears that land power has no significant role in ASB capabilities. The Army and USMC, however, retain significant responsibility in exploiting the maneuver space and freedom of action created by ASB employment.²⁴ A key enabler to ASB exploitation is the U.S. Army Transportation Corps’ ability to effectively project the ground force in non-permissive environments.

Sea Basing

Sea Basing (SB) is a Joint Integrating Concept (JIC) that will complement, integrate, and enable joint military capabilities throughout the littorals with minimal or no access to nearby land masses.²⁵ Sea Basing involves creating a floating intermediate staging base that has the ability to enable forward presence, joint interdependence, force projection, and the sustainment of joint operations from a location of the U.S. military’s choosing.²⁶ The Navy and Marines have continued to refine the concept of Sea Basing through TTP development and robust materiel solutions to include the Maritime Landing Platform, improved Lighter Aircushion Assault Craft, and more significantly a fleet of 33 amphibious capital ships that will be completely fielded by 2035.²⁷

The Army also has the requirement to project forces over the shore, but lacks the ability to effectively use a Navy Sea Base due to interoperability issues with equipment.²⁸ Given a scenario where two identical prepositioned afloat ships, one Marine and one Army, need to be discharged from a sea base, the Army would either

have to rely on support from the Navy, or set up its' own discharge operation. Once joint Sea Basing are developed, the Navy could seamlessly transition in-stream discharge operations to the Army, freeing up assets for follow on operations regardless of Service.

The Army's Role in the Emerging Strategy

While the new strategic environment assumes Navy and Air Force primacy where A2/AD threats are met with Naval, Air and Cyber forces, the Army will continue to project scalable land power when needed.²⁹ As Robert Kaplan states, "The Army must learn to adapt to the new strategic environment, become integrated in emerging capabilities and abandon the defensive posture it assumes as the role of land power evolves."³⁰

Returning to a more expeditionary construct will require the Army to project the force in order to exploit the maneuver space ASB and SB provides. With the required maneuver space and the appropriate force structure, the Army provides the Geographic Combatant Commander (GCC) with the capability to project forces over the shore, and conduct the Reception, Staging and Onward (RSO) movement of all ground forces required in a theater of operations. Once in theater, the Army is the lead agency for joint distribution operations and is responsible for providing support to Army forces and common-user logistics to other Services, as directed by the GCC and other authoritative instructions.³¹ Under the Theater Sustainment Command (TSC), the Army is responsible for executing port opening, theater opening, theater surface distribution and sustainment functions in support of Army forces. Transportation forces also provide the lead service and Executive Agency support for designated common user logistics to all

other government agencies, multinational forces, and Non-governmental Organizations (NGOs), as directed.³²

Army Transportation Force Structure Capability Gaps

A key enabler to our national security strategy of deterring and defeating aggression in an A2/AD environment is the maintenance and improvement of the transportation force structure required for force projection operations. Unfortunately, the Army has lost 16 active duty watercraft and marine terminal operating units over the last two Total Army Analysis Cycles (TAAs). These losses include the in-activations of standing units and cancelled activations of units previously programmed to activate.³³ The loss of this force structure creates a multipronged gap in the Army's ability to function in a joint A2/AD environment. Gaps in capability permeate all aspects of DOTMLPF. Without adequate transportation force structure, challenges exist across the full range of operations, from describing how the Army conducts specialized expeditionary operations to providing the facilities and infrastructure required to employ specialized terminal assets.

Doctrine

The increased focus on expeditionary operations requires current, comprehensive joint doctrine. The Army doctrine associated with force projection operations does not address A2/AD in functional or joint environments. The latest versions of Joint Publication 4-01.6 *Joint Logistics Over the Shore* and Army Field Manual (FM) 55-60 *Army Terminal Operations*, makes no reference to LOTS operations in A2/AD environments. The emerging concept of Army Expeditionary and Intermodal Operations (AEIO) from CASCOM begins to address Army transportation operations in

an A2/AD Environment. This initial capabilities document envisions AEIO providing doctrine for the full range of movement requirements.

According to CASCOM, when fully developed, AEIO will provide doctrine to govern movement of personnel, equipment, and cargo, to include combat-configured force elements, into and through sea-based or land-based ports, and staging bases. AEIO supporting capabilities will enable the Army to operate water, rail, air, and truck terminals; enable the transfer of maneuver forces and cargo from ports and terminals and between modes in a manner that meets maneuver force operational requirements and leverages each mode's capabilities.³⁴ When fully developed, the AEIO concept will provide joint, coalition forces and agencies the capability to deploy, move, support, and sustain operations across the spectrum of conflict.³⁵

While the Army currently retains limited capability to conduct many of the missions described previously, this capability is not codified as doctrine and is still conceptual in nature. This situation is also true for the emerging concepts of SB and ASB. The failure to integrate emerging AEIO concepts into emerging, joint A2/AD defeat strategies, creates a doctrinal gap in force projection capabilities. The failure to have truly joint concepts and doctrine will severely hamper the Army's ability to conduct JLOTS, inland distribution and sustainment operations. It also greatly reduces the possibility of a seamless handoff of those functions between the Services, when operationally required. This limits the options for the combatant commander when confronting A2/AD strategy.

Organization

The new expeditionary environment requires organizational constructs that are vested in the effective management and enhancement of Army force projection

capabilities.³⁶ The loss of functional transportation groups in 2006 created a command and control gap which resulted in lack management of the fleet with regard to maintenance, training and utilization. Prior to the shift to multifunctional sustainment brigades, The Transportation Composite Group (TCG) managed and employed terminal units. The TCG was responsible for all watercraft and terminal operations conducted within a specified area, while also having the capability to provide command and control for motor transport activities.³⁷ Serving not only as a functional headquarters, it also was a center of excellence for Training and Doctrine Command (TRADOC) and Army Material Command (AMC) to test, evaluate and improve Army terminal capabilities. Without this advocacy, the capability to conduct over the shore projection has atrophied. Recognizing this shortfall, the Army shifted from the multifunctional construct and now intends to create a functional Transportation Brigade Expeditionary (TBX) to manage active duty terminal units.³⁸ Without a similar capability in the reserve component, a gap will remain.

Training

The shift to a more expeditionary force and the development of SB and ASB requires a comprehensive training strategy for all Services to leverage the capabilities in a joint environment. The lack of Army participation in A2/AD defeat training creates a critical inter-service knowledge and skills gap that prevents the Army from synthesizing the requirements to integrate with the other Services in ASB and SB. The Air Force and Navy have conducted Air Sea Battle exercises as recently as December 2012.³⁹ Sea Base training is continual for the Marine Corps and has led to innovations such as the Mobile Landing Platform. The MLP, designed as a discharge platform from strategic sealift vessels to Navy/Marine lighterage, is not compatible with current Army

Watercraft.⁴⁰ The MLP demonstrates how lack of Army participation in joint training creates gaps that would normally be identified through habitual training relationships.

Another factor that complicates Army involvement in joint training is cost. Force projection training is inherently expensive. PACIFIC STRIKE '08, the largest JLOTS exercise ever conducted, had a budget in excess of \$20 million.⁴¹ Adding multinational partners of Pacific rim nations is vital, but still adds to the overall exercise cost. With the prospect of sequestration, the likelihood of expanding force projection training to the Army or international partners is further diminished. Without habitual training relationships, the Army's ability to integrate into a joint A2/AD defeat scenario is at risk for success.

Materiel

Because of the increased focus on expeditionary operations, the Army requires a fleet of terminal assets that are responsive, capable of operating in contested areas, and interoperable with the joint force. The current fleet to meet these requirements consists of 118 systems, down from 250 systems in 1996.⁴² Of the remaining systems, only 54% are manned on a regular basis by either active or reserve crews. The remaining 46% are stored in two port opening sets, as components of pre-positioned stocks at YND (Army Prepositioned Stocks Set 4) and KNB (APS 5). APS stocks contain 27 watercraft systems each to include related ground support equipment.⁴³

The lack of resourcing for Army watercraft systems modernization has resulted in a significant portion of the fleet approaching or being beyond its economic useful life.⁴⁴ In addition to an aging fleet, most of it is engineered for permissive operating environments, and is not compatible with the Navy's newest SB platforms such as the Maritime Landing Platform (MLP) or the Improved Navy Lighterage System (INLS).⁴⁵ As

described, the lack of interoperability of force projection platforms results in a situation where Army and Navy units cannot operate together in a LOTS operation. A joint operation requires work-arounds and operational separation to complete in-stream discharge operations.

Leaders

The shift in expeditionary operations focus requires transportation leaders who possess the necessary skills required to effectively employ Army expeditionary assets. Because of the low density of terminal assignments, coupled with the lack of experience of expeditionary operations, specifically in CENTCOM where operations are supported by a robust intermediate sustainment base in Kuwait, many TC officers do not understand the requirements to support expeditionary operations. With over 97% of Transportation Corps Captains deployed at least once, and more than 40% deployed twice to CENTCOM, their lack of knowledge in expeditionary operations is understandable.

The experience gap is widened in the multifunctional logistics construct where Quartermaster and Ordnance officers are assigned to transportation terminal units who lack the basic terminal knowledge provided through transportation professional military education and experience. At echelons above company or battalion level, leaders who command, manage and provide oversight of terminal units are unfamiliar with the employment of these units and must resort to on the job training to effectively employ terminal assets. Transportation force projection capability is specialized, but is no more complicated than aviation or armor operations, and can be mastered through formal training and experience. The future A2/AD environment demands leaders that are well versed in the employment of Army force projection assets in a joint environment.

Personnel

The Army is severely undermanned to support the current fleet of expeditionary transportation assets. Out of all the terminal assets in the active, reserve and APS fleets, only 30% can be manned at one time with qualified personnel.⁴⁶ In an A2/AD scenario in the Pacific, only 66% of the prepositioned stocks at YND could be manned by active duty personnel. A full breakout would require a round-out force of reserve personnel. Expanding the number of qualified terminal soldiers is challenged by the phased reduction plan for the Army, where active-component end strength is scheduled to reach 490,000 soldiers by Oct. 1, 2018.⁴⁷ Sequestration could add another 100,000 troops to already planned reductions.⁴⁸

Facilities

In anticipation of expeditionary requirements in the Pacific, the Army must have facilities with adequate berthing, maintenance and training space to maintain the readiness of terminal assets. The Army relies on prepositioned assets at YND to reduce the response time required to deploy and establish operations in the Pacific.⁴⁹ The only other facility in the Pacific with assets is Bishop's Point in Hawaii, with two active and one reserve LSV detachments. Prepositioned assets are divided equally between YND and KNB with 27 systems at each site.⁵⁰ Space at the Kuwait Naval Base (KNB) is limited due to the expansion of the Kuwaiti Navy and ongoing improvements to the port. YND is excess in capacity and has berthing space for up to 36 systems.⁵¹ The remainder of active duty terminal assets are based at Fort Eustis, VA, and would require considerable time to deploy to the Pacific. In an A2/AD scenario which requires more lift capability than is available at YND, relocation of the assets at Fort Eustis would require

the mobilization of reserve forces to upload and deploy terminal assets to the Asia-Pacific region.

Recommendations

As the Army considers ways to close the expeditionary transportation force structure gaps, it is imperative that DOTMLPF analysis must leverage emerging Army Expeditionary and Intermodal Operational (AEIO) concepts to improve force projection capabilities, modernize organizations, and procure technologies that are interoperable to the joint force. The looming fiscally constrained environment requires a balanced approach of taking immediate actions that can be accomplished with minimal costs and making evolutionary changes across DOTMLPF, until the capabilities are fully developed. If sequestration occurs, the time required for incremental changes will greatly expand and the U.S will assume a great deal of risk associated with the projection of forces in an A2/AD environment.

Doctrine

The Army must continue to update and develop Army Expeditionary and Intermodal Operational (AEIO) concepts with the aim of full integration into emerging ASB and SB concepts and doctrine. As the Army continues to refine AEIO, it must provide representation to the ASB and SB Offices to ensure emerging capabilities are compatible with the A2/AD defeat capabilities being developed by the other Services. Inclusion of Army force projection doctrine into ASB doctrine will ensure the Army can perform LOTS operations in a joint environment to effectively exploit the maneuver space created by the Air Force and the Navy.

Integrating AEIO capabilities into SB will ensure that emerging capabilities are truly joint and interoperable. Interoperability creates the commonality required for the

joint force to leverage the capability of the Sea Base. Once fully integrated, AEIO will enable deployment, movement, sustainment, and recovery operations from a sea base, intermediate support bases, seaports, air terminals, inland water and land-based terminals, to include austere and degraded operating and entry sites in all operating environments with minimal footprint and external interfaces.⁵² Inclusion of AEIO concepts into emerging A2/AD defeat doctrine will enhance the maneuver force's ability to operate in contested areas. Once joint operational concepts are developed, Joint Publication 4-01.6 and FM 55-60 require updates to reflect joint force projection operations in A2/AD scenarios.

Organization

The development of the TBX is a positive measure in rebuilding the Army's expeditionary capability. DOD should protect this unit from elimination when considering reductions in force structure due to budget challenges. The TBX should be the AMC and TRADOC center of excellence for testing and evaluating emerging expeditionary capabilities. With this capability established, the Army will have a brigade sized organization that is dedicated to planning and executing force projection operations.

The TBX should consist of multifunctional support battalions that can be tailored to meet specific mission requirements. Battalions should be established in the active and reserve components, and contain the watercraft, cargo transfer, causeway, and cargo documentation units required to execute over the shore logistics. Once activated, the TBX will be able to develop exercise and contingency plans for the prepositioned assets at YND and KNB to the crew and hull level. This oversight would significantly reduce the time required to breakout, deploy, and employ terminal assets in a support of an expeditionary operation in the Asia-Pacific region.

Currently there is no plan to source a TBX in the reserve component. Without a comparable organization in the reserves, the active duty TBX should have a habitual alignment with reserve battalions that contain terminal assets. With training and resource oversight (TRO) of reserve terminal units, the TBX would have the ability to provide global oversight and management (GOM) of all the Army's terminal assets. With this level of situational awareness, the TBX could link Strategic Distribution and Deployment Command (SDDC) mission requirements with the training and availability of all watercraft and terminal units, regardless of component. The TBX would also be the advocate and sole source of implementation of emerging doctrine, best practices associated with mission effectiveness, and the fielding of new capabilities. The GOM of both active and reserve terminal units by the TBX would promote efficient and effective utilization of terminal assets in peacetime, resulting in enhanced readiness for deployment.

Upon deployment of the TBX, the GCC would have the option of employing the unit under the TSC or under an SDDC equivalent HQ. Both organizations have the expertise, insight, and functional knowledge to employ the TBX in a joint environment in accordance with the combatant command's priorities. The TSC or SDDC expertise, combined with the readiness knowledge gained through GOM, will maximize the effectiveness of our already limited over the shore force projection assets at negligible cost.

Training

DOD must mandate and fund training of force projection capabilities in joint deployment exercises involving Sea Basing and Air Sea Battle. The training should extend to allies and partners in the Pacific. An example of a successful combined

training exercise is KEEN SWORD 2013. This primarily maritime exercise was designed to enhance coordination procedures and improve the interoperability required for joint and combined forces to effectively defend Japan or respond to a crises occurring throughout the Asia-Pacific region.⁵³ Active and reserve Soldiers deployed to Japan, drew two LCU-2000s out of prepositioned stocks at YND, and conducted combined training with the Japanese Defense Forces in preparation for future combined/JLOTS operations in the Pacific.⁵⁴ Multinational exercises strengthen relationships with partnered nations. Exercises such as KEEN SWORD should continue to be prioritized.

USTRANSCOM's plan for future JLOTS exercises on the Korean peninsula is another positive example of leveraging combined training opportunities to improve expeditionary capabilities. The Army should include other Pacific nations in future training events to include Malaysia, Singapore, and Vietnam. Leveraging combined and joint training events will hone force projection proficiency while demonstrating the U.S. resolve to remain engaged in the Pacific. While the training is expensive, DOD should look for ways to protect resources to conduct force projection training ranging in scale from the Army's involvement in KEEN SWORD to the combined/JLOTS in Korea. Consistent training will maintain proficiency of highly specialized and perishable skills; provide a battle lab for integrating ASB and SB into over the shore operations, and bolster relations with international partners in the region.

Materiel

The Army must continue to extend the service life of the current fleet, and employ interim solutions to gain time to develop, and procure terminal systems that are compatible with the joint force. To this end, DOD funded the Service Life Extension Programs (SLEP) for the LSV and LCU 2000 fleets that will extend their economic

useful life to 2021.⁵⁵ An example of an interim solution to increase interoperability is the development of the Joint Universal Causeway Interface Module (JUCIM). The Army's Modular Causeway System (MCS) and the Improved Navy Lighterage System (INLS) are not compatible. The MCS is a four feet shorter than the INLS, and therefore when they are in the water, each has different freeboard. The JUCIM is a module that will link the MCS and the INLS regardless of freeboard. The JUCIM is a \$5 million materiel solution in lieu of the \$246 million required to replace either the MCS or the INLS.⁵⁶

While the JUCIM is considered an innovation, it is actually an example of a work around for systems that are not engineered to meet joint requirements. As the Army looks to develop the next generation of watercraft, known as the Family of Maneuver Support Vessels (FMSV), it must take lessons learned from the JUCIM and the failed Joint High Speed Vessel (JHSV) program and develop the systems jointly with the Navy, to ensure they are truly interoperable. This compatibility will facilitate the integration of AEIO into emerging ASB and SB capabilities.

Leaders

The Army must take proactive steps to overcome leader experience shortfalls that come from employing highly functional transportation capabilities in multifunctional organizations. While the TBX will provide a basis for the maintenance, development and employment of specialized terminal units, the burden to train leaders on functional transportation operations should not fall on the TBX.

TRADOC, in coordination with U.S TRANSCOM, should develop an immersion course, either online or in residence for officers that will serve in, over or support the TBX. This immersion course should provide the basic skill s required for leaders to

effectively plan and execute the employment of Army terminal assets in A2/AD expeditionary scenarios.

Personnel

Minimal additions to current Army force structure will produce huge dividends when expeditionary assets are mobilized in an A2/AD scenario. The TBX headquarters is designed to have 109 personnel drawn from the deactivation of a multifunctional sustainment brigade and a transportation theater opening element. As the Army continues to draw down to 490,000 soldiers by Oct. 1, 2018, CASCOM should leverage future logistics manpower savings to expand Army terminal capabilities. Bringing back the force structure of an additional Heavy Boat Company and a full medium boat company would provide the personnel required to fully man the prepositioned terminal assets in YND when faced with A2/AD scenario from China.

Activating additional boat companies in either the active or reserve component would ensure all of the LCUs and medium boats could be manned in a break out of prepositioned stocks and still allow for manning of a training base for the assets remaining at Fort Eustis. Adding one heavy boat company would require 176 soldiers⁵⁷ and provide an additional 35,000 tons of lift capacity available for in-stream discharge operations.⁵⁸ Converting a Medium Boat Detachment back to a Medium Boat Company would require another 100 spaces⁵⁹ and provide an additional 560 tons of lift capacity.⁶⁰ While the medium boats are the first craft to be replaced, the Medium Boat Company could develop in parallel with the Future Maneuver Enhancement System (Light). In total, an additional 276 manpower space allocations would provide the ability to fully man prepositioned assets in the Pacific while adding an additional lift capacity of almost 36,000 tons to the total Army transportation force structure. As the Army draws down

and becomes more CONUS based, a top down analysis must be conducted to determine if the force allocations can be made to meet future expeditionary operations in the Pacific.

Facilities

The U.S. Pacific Command (USPACOM) Commander, Admiral Robert Willard has reportedly stated that the United States “has no desire for new bases in the region” and would pursue “a network of places close to the sea lanes of Southeast Asia where American forces can visit on rotation, avoiding the costly maintenance of bases.”⁶¹ Given this condition, the Army should maximize the current basing it already possesses in the Pacific. Navy fleets are currently divided equally between the Atlantic and Pacific. The Navy will shift to a 60/40 split in favor of the Pacific by 2020.⁶² The Army should also look at the possibility of a 60/40 split between the prepositioned assets in Japan and Kuwait. Given the vastness of the PACOM region, the anticipated A2/AD threat, and the drawdown in the Middle East, the shift in assets should place stationing emphasis on their anticipated employment. YND has the berthing space available, and relocation of the assets to the Pacific is a minimal cost when compared to operational capability gained by PACOM.⁶³

Sea Basing capabilities developed by the Navy and the Marines are limited in scope and don’t consider force projection operations that require forces beyond the Marine Air Ground Task Force (MAGTAF) level. When contingency operations require a force larger than the Marines can provide, DoD must resolve interoperability issues to ensure the Army utilize the expeditionary capabilities of a SB. Conforming a SB to joint requirements will ensure that follow-on forces can leverage the SB from any location.

As active watercraft units in Kuwait draw down, the Army will have the opportunity to re-station two LSV detachments.⁶⁴ Potential new basing sites include the West Coast of the United States, Hawaii, and Japan, where watercraft units are already stationed.⁶⁵ Providing a new stationing location for Army watercraft where the required infrastructure exists, allows for more forward stationing at reduced costs. As the Army continues to develop the future class of Maneuver Enhancement Vessels, it must identify basing locations that support contingency operations and routine training.

Conclusion

China is growing in importance in the international order and their ongoing development of A2/AD capabilities proves that they consider the United States a challenge to their growing influence. As the force becomes more CONUS based, the Army must prioritize capabilities that enhance its ability to project the force at the time and place of the U.S.'s choosing. Continued development of transportation force structure required to support expeditionary operations addresses the growing A2/AD challenges anticipated in the Asia-Pacific region. The DOTMLPF solutions proposed provide a possible functional solutions analysis (FSA) that can be leveraged in the Joint Capabilities Integration Development System (JCIDS) to drive future procurement and manning solutions.

Development of this highly specialized interoperable capability requires dedicated and systematic capital investment in future Army terminal operations capabilities. Investment is critical and should be protected from defense budget cuts. Sequestration may delay future development of Army expeditionary capability but the Service must take immediate actions on non-materiel solutions that can be

accomplished at little or no cost. Maintaining and enhancing a robust force projection capability will demonstrate the resolve the United States has to preserve its interests in the Asia-Pacific region.

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